



## **Impact of Digital Media Usage on Human Happiness and Well Being - An Analysis of Rural Communities in Thailand**

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### **Abstract**

The distribution of digital media seems to impact on daily communication media usage and invest a lot of money on digital living. This study aims to examine the effects of digital culture and digital media on the happiness and well-being of rural people ( $n=387$ ,  $\alpha=0.05$ ) in the Koakha and Thagham sub districts in Lampang and Singhburi provinces. The results found that the majority samples perceived the highest score ( $\bar{x}=4.01$ ,  $s.d.=0.9$ ) on analogue television and personal communication which influences six factors; 1) health and mind dimension; 2) job security dimension; 3) economic security dimension; 4) community and family relationships; 5) administrative management dimension; 6) community environment and climate dimension together where they are entwined and cannot be easily separated. Investing in modern media tools and systems (social networks, mobile devices, digital television), should be embraced, though they should be treated with caution. It is also crucial to account for any unintended effects, such as unfiltered or unverified information. The paper further questions the role of local government, and their role in promoting local identity, social policy and how digitisation could assist in serving those living outside of major cities in Thailand.

### **Keywords**

Well-being, Happiness, Digital media, Participatory communication

## **Introduction**

Modern society is changing very rapidly, and it is timely to ask how this is changing communities which used to be less connected to the globalized and digitalized world. Digital media have now opened portals for communities to enter and be entered into. Barriers to the accumulation of knowledge, attitudes and communication behaviour have been lessened as people are free to communicate on any subject, including subjects that were formally taboo, such as sexual behaviour and racism. Additionally, popular messages are not confined only to education or entertainment; many involve personal matters and real-life issues such as suicide, sex, fighting, etc. and appear live on the social network. With these, societies are becoming more mixed in terms of race, culture, language and belief systems. This can cause difficulties for teachers, business people – anyone who works with people in situations where they could encounter a diverse population. According to Kuo and Jennings (2013), worldwide digital communication systems and the Internet link the thinking and ideas of billions of people. They are also linking intelligent machines and databases. It is of use in education and online teaching and may reform education, making all kinds of learning and teaching readily available. It goes without saying that communities in Thailand are affected by such in similar ways as are other emerging societies.

Digital media culture and digital media are involved in the creation of a new world society, especially, when compared to contemporary media consumption. While television still dominates the use of community media, there is a general move towards the use of smart phones in rural areas because of the lack of proper broadband connections. The availability of phones means that a 'culture' of phone use is developing in Thailand. As part of this 'culture,' users send 'text' messages to one another on a more or less continual basis and spend a great deal of their time using social media such as Facebook, Twitter, etc. Acceptance of a modern lifestyle suggests that happiness is related to using certain media, media contents, or products. This is often suggested in advertisements, where happiness and success in life are associated to or claimed to be the cause of services and items being sold. Mediated communication through social media and social networks may connect people together and facilitate exchange of information and a way of keeping up, but are also found to be related to loneliness and narcissism. While, the influence and availability of social media is increasing, television broadcasters are investing in digital systems and are working on more creative programming.

Regulations and measures to mitigate undesirable media effects can be traced back to traditional media, such as imposing labelling of media content on TV programs, radio shows and films, strengthening of laws involving the abuse and disuse of the media, and censorship. There are also other 'rights' laws that can be contravened, including anti-discrimination laws which prevent the use of certain defamatory or racist language or

discriminating against individuals. Recently, social media networks like Facebook and YouTube have put in place measures to identify and stop spread of malicious media contents. Subscribers are provided ways to report materials which are deemed offensive or can cause issues.

In relation to modernisation and digitalisation, Thailand has issued a policy statement outlining a twenty-year strategy, called the 4.0 policy. On the 29<sup>th</sup> July 2016, the Prime Minister outlined a National Economic and Social Development Plan. This plan is set to run from 2017 until 2021. It is complementary to the 20-year national strategy designed to achieve sustainable development. This plan is sometimes referred to as the '6-6-4 plan' as it consists of six areas, six primary strategies and four supporting strategies. The six areas are: security, competitive enhancement, human resource development, social equality, green growth and public sector development. The five-year 12<sup>th</sup> National Economic and Social Development Plan continue to focus on the Philosophy of Sufficiency Economy, which emphasises a 'middle path' and comprises the three principles of moderation, reasonableness and self-immunity. According to the National Economic and Social Development Plan 12 (2017–2021), Thailand needs to continue the sufficiency philosophy of King Bhumipol Adujadej (Rama IX). It is related to human development, helping people to live better lives, towards the development of a 'perfect' and happy society. The way towards such a society, was the promotion of better public health and hygiene, as well as improved mental health. This study is situated in the area of human development and social equality investigating the relationship between digital media and the happiness and well-being of communities in nearby urban areas of Thailand.

In the World Happiness Index for 2017 (Helliwell, J., Layard, R., & Sachs, J., 2017), the top 10 nations for happiness were Norway, Denmark, Iceland, Switzerland, Finland, Netherlands, Canada, New Zealand, Australia and Sweden tied for the 9<sup>th</sup> position. Eighty percent of the variation in happiness across the world is related to internal (domestic) factors of countries. In richer countries, the internal differences cannot be attributed to mainly income inequality, but are influenced by differences in physical and mental health, and personal relationships. The biggest single cause of misery is mental illness. Income differences are more important in poorer countries, but even their mental illness is a major cause of misery. Work is also a major factor affecting happiness within countries. Unemployment causes a sharp rise in unhappiness and misery. In Thailand, many people speak about happiness (Netseangthip, 2013). From 2008 – 2012, the top five areas for happiness in Thailand were Nakornpanom Province, Pichit, Trang, Chaiyaphum, Krabi. The relationship between happiness and debt was considered between 2000 and 2003. People in the northern region have the lowest level of annual debt in Thailand. Monks and other religious leaders try to induce people to share resources, help each other, talk to their neighbours, practice

meditation, and live a life of moderation, as sources of happiness. These philosophies may have their roots in religious teachings.

In this study, a list of happiness criteria was compared with administrative criteria and used in selecting the communities to be studied. Two communities were then chosen as target populations: the Koakha community in Koakha District, Lampang Province and the Thagham community in Inthaburi District Singhburi. Both were in neighbouring urban areas in Thailand and were both awarded for their administrative practice from the Social and Economic Development National Committee in 2016. Their state of happiness has been studied, in similar ways as happiness has been studied in other areas in Thailand. With Thailand's 4.0 policy on pushing forward and investing much on digitalisation, particularly on media, it is imperative to take a look at whether people's happiness and well-being have some influence or predictive power of media use. While most studies investigated the effects of media use, the present study examined the reverse, that is, whether happiness and well-being relate to or can be used to predict media usage, specifically digital media use in the studied population. Thus, the present study aimed at investigating the factors of the respondents' happiness and well-being and whether these factors are related to their media use.

## **Objective**

To investigate the happiness and well-being of rural people in neighbouring urban communities and its relation to their digital media use.

## **Literature Review**

### **Measuring happiness**

Happiness is subjective and hard to define using an economics measurement. Happiness often connects to well-being and is typically measured using peoples' responses in survey research. There are also debates on whether it is possible to measure happiness. Can it be measured? If so, how should it be measured and what factors affect it? (Diener, 2000; Dolan, Peasgood and White, 2007; Easterlin, 2003; Frey and Stutzer, 2002; Layard, 2005; Oswald, 1997; Sumner, 1996). Quantitative studies of happiness are usually based on the measurement of subjective well-being and derived from survey questions such as: "Taking all things together would you say you are very happy, quite happy, or not very happy" (Dolan, Peasgood and White, 2007; Frey and Stutzer, 2002; Layard, 2005; Jorgensen et al, 2016) investigated possible links between social and economic status and well-being using a combination of economic and psychological approaches. For example, to what extent is individual well-being influenced by (1) demographic characteristics (i.e., household income, age, education, employment, and length of residence); (2) perceptions of the city (e.g., local

services and employment prospects) (3) attitudes toward political officials; (4) participation in community life; (5) SES, and (6) reference income? Although there is still some doubt about the validity of such methods used to measure happiness, there is a growing body of evidence in support of such measures (Bray and Gunnell 2006; Layard 2005).

Over time, these researchers have contributed to the development of frameworks that can be used in measuring happiness. Appropriate control variables have been developed as well. Many of the methods used are based on multiple regression models. According to Oswald (1997), "Reported happiness is high among those who are married, on high income, women, whites, the well-educated, the self-employed, the retired and those looking after the home." Additionally, there is a wide range of econometric studies investigating the socioeconomic and demographic determinants of happiness and well-being. Nevertheless, there are only a few empirical studies that actually investigate the role of place and space with regard to happiness and well-being. The works of Cropper (1981), Graves (1983), and Roback (1982) are of importance in the context of the present study as they examined the relationship between wages, rent, and quality of life. These studies tended to define well-being as a set of measurable factors that are linked to the individual's quality of life. A British Household Panel Survey (BHPS) indicated that the well-being of unemployed people is positively correlated with reference group unemployment at the regional and household level. This implies that "unemployment hurts, but it hurts less when there are more unemployed people around" (Clark, 2003, p. 346).

#### **Koakha and Thagham communities' background and their social capital**

A unique thing about the people of Koakha and Thagham is their acceptance of new forms of media innovation. They allow the media to depict their cultural homogeneity. Local people here also possess other types of cultural capital such as cultural objects (the ancient reclining Buddha image), funding from the government for community projects (a recycling depository project and the creation of bicycle lanes), existence of government offices (a military base, a local kindergarten, primary, and secondary schools), as well as websites and social networking online. While many local communities have launched mass media community radio and television projects, Koakha and Thagham prefer their public address system and personal media. Most of the research on this area is concentrated in the disciplines of anthropology and sociology, and very little of it covers communication from socio-economic and micro-level approaches. Generally, social capital is related to a small-scale aggregation of social relations based on a network of trust and reciprocity and for the purpose of providing benefits to the members of the network (Newton, 1997). For a community, frequent cooperation by its members is expected to lead to a tighter social linkage and increased trust in one another. Support for this idea can be found in experimental

research focusing on iterated prisoner's dilemma games - cooperation begets trust, which leads to further cooperation (Shah.V. D., 1998). However, determining the flow of causation outside the laboratory is theoretically and methodologically complex.

Several studies have indicated that social capital is indirectly related to human beings. Social relationships are created mainly through communication. In 1993, scholars in Thailand set up a human and social development reference (Office of the National Economic and Social Development Board, 2002) index based on the eight categories of: fundamental basic environment, economy, health and public health, information and learning, education and human resources, culture and mind, public participation including security of life and freedoms, rights, and family and community.

### **Mass media and culture**

Technology determinism (McLuhan, M., 1964) refers to social mass modernization spreading cultural information across all kinds of media. McLuhan argued that technology communication can be used to analyse our society, the medium is not just a technical support or neutral or invisible channels through which media messages flow (Ibid). In asserting that "the medium is the message," the author reminds us that the medium is also symbolic and can impact on audiences with increased strength through selling techniques which enhance the role of symbols in the distribution process. Negus, K.R., (2002) explained that the cultural economy means cultural economics and the economics of arts that consist of all cultural products such as literature, arts, music, fashion and design, drama and journalism. Besides the reflection on the products, it was suggested that culture has influence on the consumption of media products. Furthermore, Celia, L. (2011) shows that the mass media is able to form a link between cultural consumers and cultural production; therefore, it could be suggested that what is considered to be a "symbolic economy" is based on abstract products and concepts including information, financial tools, and "culture" (i.e., art, literature, fashion, music, tourism, etc.).

This economy is based on an interrelated production of such cultural symbols and the spaces in which they are created and consumed including offices, houses, restaurants, museums, and even streets; on this point, Warde, (2005) poses the question, "Is the economy becoming more cultural?" Most recent analyses of the relationship between culture and the economy assume that the boundaries between the two are collapsing. Moreover, it has been much more wildly asserted that there is more culture in the economy than the other way around. The term "culturalization" implies that culture has become more central in economic relations, a process usually implicitly considered good because no one is against more culture.

### **Systems Theory and Gratification Theory**

Relational communication, a branch of the communication field, is greatly influenced by systems theory. Stephen, J.L. (1996) referred to Bateson and other communication researchers who emphasised observing human behaviour, as done by the Palo Alto Group (2002). From a systems point of view, behaviour is what matters. The structure of a relationship consists of these organized behavioural patterns. For example, our relationship with other people is determined by how we act and what we say. Communication patterns are established through a sequence of actions or behaviours. When we communicate we take turns acting and reacting in sequence, and thus, our interaction is a flow of messages. Interaction is a basic unit of communication which forms through the human psyche and applied to communication. An interaction is a set of two contiguous messages between two people. Interactions are combined into larger units called double interactions, and the latter are combined yet again into triple interactions. The structure of an entire interaction system is composed of larger and larger sets of interactions. Interactions combine to become a culture. Unless, an interaction rejects communication, it is a common feature of life. As a result, the media has interacted with people consistently over time, and are therefore able to influence audiences.

The theory that people purposefully use media is founded on the functionalist perspectives of mass media communication, known as the use and gratification theory (U&G). It was first developed out of research on the effectiveness of the radio as a communication medium in the 1940s. It focuses on an explanation for audience members' motivations and associated behaviours. Scholars of psychology coined the term 'gratifications' to depict the specific dimensions of usage and the satisfaction of radio audiences. The basic assumption is that audiences are actively involved in media use and interact strongly with communication media. Studies found similar usage purposes of media users of Internet and social media as other scholars found in various studies done on radio and television. Even though they have differing formats, these applications are now integrated into one gadget and can fit into human communication habits. For example, Rubin, (1994) found that certain kinds of television programs have been shown to be related to various human needs, including information acquisition, escape, emotional release, companionship, reality exploration, and value reinforcement.

### **Media effects and media use**

Media effects studies have shown both positive and negative effects of the media and can be both constructive and destructive (Mehraj et.al, 2014), although much emphasis is given on negative media effects. Some general contributions of the media to society are the promotion of and distribution of goods through advertising, keeping people up-to-date of happenings around the world, and bringing people closer together (Ibid). New media, like social media, also have some positive effects on society. They provide forums for people who

would find it impossible to meet in the real world, open opportunities to cross national boundaries, unite people in bringing positive change, and keep people in touch (Sadiqui and Singh, 2016).

### **Six dimensions of happiness and well-being**

In the present study six dimensions were examined: health and mind, job security, economic security, community and family relationships, the administrative management dimension and the social environment dimension. The first dimension was based on the Thai Happiness Indicator (Top 10 happiness places in Thailand, 2016) from the Department of Mental Health, Thailand. A well-being measurement with a systems theory approach is used by the National Economic and Social Development and many other researchers to quantify "happiness," a subjective and individualistic issue, by first rating the basic living status of people. The human dimension is added to fill in the picture of this issue. The cultural aspect is definitely an important part of the human dimension.

In conclusion, the abovementioned perspectives were adopted to serve the purpose of the present study in investigating how communication affects the well-being of people.

### **Research Questions and Hypotheses**

Based on the literature review, the hypotheses and research questions of this study include the following:

RQ1: Which six factors affect happiness and well-being of local people in the Koakha and Thagham communities and how are the factors related to their media use?

H<sub>0</sub>: The happiness and well-being of local people in the Koakha and Thagham communities does not have any relationship with their digital media usage.

H<sub>a</sub>: The happiness and well-being of local people in the Koakha and Thagham communities has a relationship with their digital media usage.

RQ2: How do people in the Koakha and Thagham villages work out their happiness and well-being and how do they use media to communicate?

H<sub>0</sub>: The level of happiness and well-being of local people in the Koakha and Thagham communities does not have any relationships with the level of their mass media usage.

H<sub>a</sub>: The level of happiness and well-being of local people in the Koakha and Thagham communities have a relationship with the level of their mass media usage.

### **Methodology**



This study used a mixed-method approach. To answer research question one, quantitative approach was used to investigate the happiness and well-being of the selected communities via survey. The survey questionnaire contained items for measuring happiness and well-being as well as items for the media use (the type of media they use and the purpose for using the media). The statistical tools used were the following. For the descriptive part, the mean and standard deviation (for calculating happiness and well-being, and media use) and the percentage for socio-economic variables were used. For the inferential part, factor analysis (for investigating the factors of well-being), and multiple regression (for predictors of happiness ( $X_i$ ) on media usage ( $Y_i$ ), were used. To answer research question two, a qualitative approach was carried out through an in-depth interview of 60 key informants (head of communities, local government officers and other local people). The data was coded and analysed to support findings of the quantitative part as well as provide deeper insight into their media use and how it may affect them.

### **Sample**

The area criteria selection method used the result of the happiness in mind and body, retrieved from: Labour Statistical Division, Social and Economic Statistical Office, National Statistical Office., 2013) and compared it with those provinces that were rewarded for the best management and complimentary administrative management in 2016 (Announcement of Good Local Administration., 2016.) The statistics showed that Northern and Centre parts of Thailand were included in both data bases. The researcher then selected Khokha sub-district, Lampang Province and Thagham sub-district, Singhburi Province. The sample communities were 11 villages in Thaghamsub district and 8 villages in Koakha Sub district in Lampang Province. The sampling technique was purposive stratified sampling methods with a sample size of 400 people using Taro Yamane's formula with a 5% margin of error ( $p= 0.05$ ). Forty questionnaires were distributed per village, and the rest went to the downtown area. Of the 400 questionnaires distributed, 188 were returned from Koakha and 199 were returned from Thagham. A total of 387 questionnaires were returned to the researcher and used for regression and factor analysis. The sampling frame of the present study was based on collected data from 2016 (Thailand Information Centre, 2017) reporting that there were 4,242 people in 1,452 households for Thagham subdistrict and 3,603 people in 1,174 households in Koakha sub-district. The total population for both areas is 7,845 people. The areas able to receive Digital Television from repeater stations in the Doitone sub district are, Prabaht District, Lampang Province, Thakham sub-district, Bangrachan District and Singhburi Province.

### **Variables**

The socio-economic status variables reported were sex, age, marital status, education, literacy, job, income, and health insurance. Responses were recorded from closed-ended multiple-choice questions.

The well-being index was composed of six dimensions, namely, 1) health and mind dimension: mental and physical health; 2) job security dimension: regular income, pride in what you do, job security, freedom to work, seasonal income, unstable costs; 3) economic security dimension: sufficient income per month per household to maintain a reasonable lifestyle, savings status, risk of unemployment, economic crisis; 4) community and family relationships: personal respect, family communication, shared activities as a family, type of family, independence, social relevance, norm and family risk taking, drugs and alcohol abuse in the family; 5) administrative management dimension: public places (e.g., parks, a library, a playground), public communication (i.e., public address, leaflets, pamphlets, a website, social networks), good governance, public participation in local governance such as planning, monitoring, budget transparency, election voting and access to public welfare 6) community environment and climate dimension: living environment, problems in the local area (i.e., crime, drugs, noise, alcohol, waste). The response scale ranged from 1 (not at all important/not at all agree) to 10 (very important/strongly agree).

Types of communication were separated into printed media, local media, radio broadcasting, television broadcasting, personal media and social media. For this, the question was, "How often do you use any form of communication?" Responses were ranked on a five-point scale (where a value of 5 means regularly, 4 means often, 3 means sometimes, 2 means rarely and 1 means once and 0 means never). There are 36 Digital TV channels that the studied areas are able to receive. Media channel exposure and frequency of exposure of the respondents were measured through a scale of 0-5, (0 = never seen, 1 = seen only once, 2 = seen rarely, 3 = sometimes, 4 = seen often and 5 = seen regularly). 'Seen' here is used in synonymous terms as watch.

The reliability and validity of the questions were determined by professors and 61 people who were familiar with the background of both samples. Internal consistency of the data was determined by using Cronbach's alpha test. The resultant coefficient of Koakha ( $\alpha = 0.93$ ) and Thagham ( $\alpha = 0.939$ ) was higher than the standardized alpha (0.7). Therefore, the questionnaire was deemed to be appropriate. The wording and number scale were also adjusted from 1- 5 to 1- 10 to improve inter-personal consistency, and intra-item and inter-item consistency.

In the questionnaire, a series of questions refer to well-being, cultural traditions and community activities using a scale from 1 to 10. With the use of the MAX-MIN-CON principle, the main objective of the research was to gauge happiness (8.21 - 10.00 means very happy; 6.41 - 8.20 means average happiness; 4.61 - 6.40 means almost happy; 2.81 - 4.60 means

less happy; and 1.00 - 2.80 means really not happy). After descriptive analysis, relations among the variables were analysed by multivariate analysis, and the results are reported below.

## Results and Findings

This section is divided into 4 parts. The first shows the happiness and well-being average and descriptive analysis of socio-economic variables. The second provides data analysis on communication types perceived and their communication behaviour. Finally, results of the third, factors of well-being and happiness, and the fourth, multiple regression analyses, are presented.

**Table 1** Socio economic profile of the respondents and over-all mean happiness score

Respondents (387)	Male (32%)		Female (68%)	Happiness x=7.97		Age average 60.5
Age duration	17-30 (6%)		31-50 (29.3%)	51-70 (57.3%)		71 – 87 (7.5%)
Civil-status	Married (60.2%)		Never married (11.6%)	Divorced (18.9%)		Separated (2.3%)
Literacy	Literate (84.8%)		Read, no write (8.9%)	No read, no write (6.3%)		
Education (completed)	Primary (42.4%)		Secondary	Bachelor		Post-graduate
	Didn't attend (2.3%)		(36.4%)	(10.3%)		(2.3%)
Occupation	Unemployed	Labour	Farm worker	Business owner	Gov. official	Employed in a private firm
	14.2%	34.4%	18.9%	15.2%	8.3%	7.5%
Average Income/Month	<8,000 baht/month		10,000-14,999 baht/month	15,000-20,000 baht/month		>20,000 baht/month
	22.2%		13.4%	14.7%		8%

The table summarises the socio-economic profile of the respondents in the two communities as well as indicates their over-all happiness (this includes the permanent and the temporary residents). Additional information gathered showed that nearly 50% of the sample are household leaders and are permanent residents of Koakha and Thagham, while the remainder are housewives, children and extended family members. Some temporary residents are government employees and wage earners.

Most of the respondents temporary-residents and the permanent-residents) had debt (43.2%) but could manage it. Some of them had no debt (9.6%), while very few (2.1%) had debt and

thought it was unmanageable. Most of resident-respondents (44.5% ) were able to save money, while 18.8% did not save money. The remaining resident-respondents did not answer this question. Of the total respondents (both), 46.5% saved 0-5% from their annual income, 83% saved 5-10%, while only 1.8% saved 10-15% from their annual income.

Almost all (both permanent and temporary residents) had access to government health insurance and were on the free cure program; the remainder were receiving government welfare and unemployment benefits. They also had insurance policies that they paid by themselves. This result reflects the availability of medical care for Thai people and advances in the health care program, at least in terms of equity. The following Table (2) shows communication usage and behaviour of the respondents which include digital and analogue media (TV and radio), personal media, offline media, and print media.

Based on Table 2, Television was still the preferred medium of the respondents wherein they receive media contents mostly from analogue TV such as channels 3, 5, 7, 9, Thai PBS, and NBT channels and digital media such GMM, Thairath TV, Channel One, Channel 8, Workpoint, MONO29 and so on ( $\bar{x} = 4.01$ , S.D. = 0.9) and ( $\bar{x} = 3.43$ , SD= 0.03). It can also be observed that the respondents engaged themselves in interpersonal communication at a healthy level. Strangely, although it was a slight difference, the respondents reported they had more interpersonal communication with their community leaders and volunteers ( $\bar{x} = 3.43$ , SD=0.15) than their family members ( $\bar{x} = 3.39$ , SD=1.59). Perhaps, this was due to most members going out for work and the frequent contact of volunteers and leaders to household members when everyone was at home.

**Table 2** Communication behaviour of respondents

Type of communication	$\bar{x}$	S.D.
<b>Broadcasting &gt; Television Broadcasting</b>		
Watching analogue 3 5 7 9 Thai PBS and NBT channels	4.01	0.9
Watching digital television such GMM, Thairath TV, Channel One, Channel 8, Workpoint, MONO29 and so on	3.41	0.03
<b>Personal media</b>		
Local representative in village such as volunteer	3.43	0.15
Communication with family members	3.39	1.59
Talking with monks	3.14	1.63
Talking with neighbours	3.05	1.31
<b>Social media</b>		

Type of communication	$\bar{x}$	S.D.
Regular chatting via their mobile phones	3.41	1.55
Keeping a mobile phone available at all times	2.62	1.72
Regular use of Internet connections	2.43	3.22
Internet and social media such as Facebook, LINE, Twitter	2.35	1.19
Keep their mobile phones at hand, even at night, when sleeping	2.29	1.72
Download and update applications to keep in contact with friends	2.25	1.72
Information gathered 24 hours a day via the Internet	2.22	1.83
Send stickers and short messages to maintain group relations	2.06	1.72
Social engagement via the use of social applications	2.04	1.61
<b>Offline media</b>		
Public announcements are made everyday	3.29	1.62
Public announcements are made using a community public address system	3.23	1.74
Flyers, bulletins, local government newsletters	3.02	2.17
Advertising posters attached to moving vehicles	2.41	1.61
Don't like public speaker announcements made from caravans passing through the village because of the loud noise.	1.93	1.64
<b>Print media&gt; Newspaper</b>		
Like to read a newspaper every morning	3.23	1.79
Reading qualitative newspapers such as Daily News, Thairath, Komchadluek	2.36	1.60
Reading local newspapers	1.93	1.66
Reading quantitative newspapers such as Prachachart, Bangkok Biznews	1.82	1.51
Like to read newspapers while eating	1.55	1.69
<b>Broadcasting &gt; Radio</b>		
Listen to political content on local radio shows	2.46	1.85
Listen to entertainment programmes on the radio received via satellite	2.28	1.80
Listen to entertainment programme received via local radio stations	2.17	1.71
Like to listen to the radio while watching television	1.84	1.84
Like to listen\ to the radio continuously over the day	1.78	1.63

Social media and offline media followed next as the medium of communication most used in the community is considered. Radio and print media were the least used. This is a mirror image of what is happening in emerging societies at present, with print media and radio broadcasts becoming less and less appealing to younger audiences, and perhaps to the older generation as well. Other salient points that are shown in Table (2) are the following: 1. Radios are listened to mostly for political content and local information ( $\bar{x}$  =2.46, SD=1.85), 2. Social media is generally used for chatting with the use of mobile phones ( $\bar{x}$  = 3.41, SD=1.55), and 3. Interpersonal-communication with local leaders or volunteers happens a lot ( $\bar{x}$  =3.43, SD=0.15). Considering the above information, it can be said that all available media are being used by the people in the studied communities, although the degree of usage and purpose vary across media types, user, and purpose.

The next sections show the happiness indicators which are aspects of well-being, and the factor as well as regression analyses.

### Happiness Indicator

The overall means of the happiness indicators on the six dimensions of well-being, including health and mental dimension, are provided below.

**Table 3** Over-all mean of well-being and means in six dimensions

Dimensions of well-being	$\bar{x}$
1. Health and mind dimension	7.91
2. Job security dimension	6.73
3. Economic security dimension	5.74
4. Community and family relationship dimension	6.94
5. Administrative management dimension	7.10
6. Community environment and climate dimensi	4.03

The over-all mean of well-being of the respondents is at the most happiness level ( $\bar{x}$  = 6.2). Most of the dimensions are at average happiness levels, some of them are happiness levels except for the community environment and climate dimension which was reported to be the lowest of the six ( $\bar{x}$  = 4.03). Their happiness level was the highest in the health and mind dimension which includes life satisfaction, health and happiness administrative management, community and family relationship and job security dimensions are in average happiness level. The level of happiness experienced could be associated with economic security where they have sufficient income per month per household to maintain a reasonable lifestyle, savings status, risk of unemployment, economic crisis, and expenditure

control. The social environment dimension including living environment, problems in the local area i.e., crime, drugs, noise, alcohol, waste, was at the lowest levels.

The mean for happiness measures from 83 devices, the respondents had  $\bar{x} = 6.2$  (out of 10). It is therefore noted that their happiness levels are in the average range for happiness, supporting the above-mentioned observation. Previous research has demonstrated the measure of life satisfaction i.e. the cognitive component of well-being –has a test–retest reliability of around 0.6 (Krueger & Schkade, 2008). The loading for the single-item measure for well-being was a fixed priority at 0.895 which is consistent with this study. Details for each dimension of well-being are summarised with the factor analyses below.

### Details of each dimension and factor loading analysis

#### 1. Health and mind dimension

The over-all mean for the health and mind dimension is above average ( $\bar{x} = 7.91$ ), see Table 5 below.

**Table 4** Health and mind dimension (mean and factor loading)

Health and mind dimension	Average		Factor loading			Reliability
	$\bar{x}$	$\alpha$	1	2	3	
1. Willingness to help others	8.36	1.408	.788			
2. Good relationship with neighbours	8.27	1.529	.763			
3. Happy to take on new work with the determination to succeed	7.91	1.814	.733			
4. Physical and personal satisfaction	8.47	1.556	.706			27.841
5. Pride in oneself, family and own society	8.15	1.472	.605			
6. Ability to manage a crisis and overcome it	7.51	1.846	.598			
7. Available family support in times of need	8.11	1.883	.453			
8. Success and progress in ones work	7.86	1.663		.741		
9. Feel happy	7.97	1.725		.730		24.394
10. Family support in times of illness	8.52	1.685		.726		
11. Adequate rest and sound sleep	8.13	1.679		.778		
12. Lively/fresh	7.20	2.177			.778	11.869
13. Positive / negative attitudes owards being rejected	6.39	2.424			.821	

Over-all mean	7.91	
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The first Dimension consisted of 13 indicators. The mean result of each indicator showed family support in times of illness ( $\bar{x}$  = 8.52), physical and personality satisfaction ( $\bar{x}$  = 8.47), a willingness to help others ( $\bar{x}$  = 8.36), a good relationship with neighbours ( $\bar{x}$  = 8.27), and pride of oneself, family and own society ( $\bar{x}$  = 8.15) were the highest. The indices of the health aspect were created by factor analysis using *Varimax* rotation to separate the individual responses to 13 distinct items. The analysis, which accounted for  $\sigma^2$  = 64.101 of variance in the nine items, yielded a three-factor solution that was highly interpretable. Each item loaded on only three factors all of which had a strong factor loading. The mental and physical health aspect index was developed for this study by adding all responses to items concerning viewpoints on “*Happy to live in family and community*”, “*Happy and healthy*”, and “*Lively and positive thinking*”. The three-item index achieved  $\sigma^2$ = 27.841, 24.394, and 11.869, respectively.

## 2. Job Security dimension

**Table 5** Job security dimension (mean and factor loading)

Job Security Aspect	Average		Factor loading		Reliability
	$\bar{x}$	$\alpha$	1	2	
1. Present job security	7.26	2.651	.866		52.502
2. Regular income	6.85	2.715	.865		
3. Pride in work	7.62	2.531	.885		
4. Sufficient income	7.28	2.492	.880		
5. Income and work are secure and unchanging	6.41	2.829	.778		
6. Itinerant workers or freelance	7.35	2.669	.673		
7. Present job is affected by volatility of fuel prices	5.02	3.357		.864	20.926
8. Decrease in income by the national economy	6.05	3.042		.788	
Over-all mean	6.73				

Dimension 2 consisted of eight indicators. The result showed the mean scores were the highest in pride in work ( $\bar{x}$  = 7.62), itinerant workers or freelance ( $\bar{x}$  = 7.35), sufficient income ( $\bar{x}$  = 7.28), and present job security ( $\bar{x}$  = 7.26). The indices of the job security aspect were created by factor analysis using *Varimax* rotation to separate individual responses of



the eight distinct items. The analysis, which accounted  $\sigma^2 = 73.428$  of variance in the eight items, yielded a two-factor solution that was highly interpretable. Each item was loaded on only three factors; all items had also a strong factor loading.

The job security aspect index was developed for this study by adding all responses to items concerning viewpoints on the external factors “*Job security and Sufficiency lifestyle*”, and “*Job security depends on national economic performance.*” The two-item index achieved  $\alpha = 52.502$  and  $20.926$ , respectively.

### 3. Economic Security dimension

**Table 6** Economic security dimension (mean and factor loading)

Economic Security Aspect	Average		Factor loading		Reliability
	$\bar{x}$	$\alpha$	1	2	
1. Have health problems which incur more expense	4.25	3.412	.524		23.281
2. Manage their regular account – household expenses	3.05	3.308	.545		
3. Manageable debt	6.07	3.206	.593		
4. Occupation depends on national economic security	5.58	3.058	.726		
5. Present income satisfaction	6.84	2.642		.676	20.796
6. Economic sufficiency lifestyle	7.45	4.658		.649	
7. Household income is derived from home industries	6.64	2.677		.699	
8. More expenditure than income	6.02	3.100	.502	-.409	
Over-all mean	5.74				

Third Dimension: Economic security aspect - they indicated that they have health problems which incur more expenses ( $\bar{x} = 4.25$ ), manage their regular account – household expenses ( $\bar{x} = 3.04$ ), manageable debt ( $\bar{x} = 6.07$ ), occupation depends on national economic security ( $\bar{x} = 5.58$ ), present income satisfaction ( $\bar{x} = 6.84$ ), economic sufficiency lifestyle ( $\bar{x} = 7.45$ ), household income is derived from home industries ( $\bar{x} = 6.64$ ), and more expenditure than income ( $\bar{x} = 6.02$ ). The indices of the economic security aspect were created by factor analysis using *Varimax* rotation to separate individual responses for the eight distinct items. The analysis, which accounted for  $\sigma^2 = 44.07$  of variance in the eight items, yielded a two-factor solution. Each item was loaded on only one factor; all items also a strong factor loading. The economic security aspect index was developed by adding all

responses to items concerning viewpoints on “Occupational viability depends on national economic security and Manageable debt” and “Economic Sufficiency”. The two-factor index achieved  $\alpha = 23.281$  and  $20.796$ , respectively.

#### 4. Community and Family Relationships dimension

**Table 7** Community and family relationships dimension (mean and factor loading)

Community and Family Relationships	Average		Factor loading			Reliability
	$\bar{x}$	$\alpha$	1	2	3	
1. Family is supportive and help each other	8.55	1.680	.877			43.501
2. Family has honour and sincerity	8.60	1.493	.920			
3. Family has a close relationship	8.62	1.547	.929			
4. Family communicates at all times	8.33	1.757	.508			
5. Problems are discussed in the family all the time	8.36	1.696	.886			
6. Family does activities together	7.98	2.037	.745			
7. Family member(s) abuse alcohol	2.78	3.311		.841		13.952
8. Family member(s) gamble	1.74	2.538		.822		
9. Family talks with neighbours regularly	6.94	2.438			.530	12.703
10. Family does religious activities together regularly	7.51	2.324			.755	
Over-all mean	6.94					

Community and family relationships aspect (consisting of 10 items) indicated that family close relationships scored the highest ( $\bar{x} = 8.62$ ), followed by honour and sincerity ( $\bar{x} = 8.60$ ), frequent communication ( $\bar{x} = 8.59$ ), family support and help ( $\bar{x} = 8.55$ ), discussing family problems with family members ( $\bar{x} = 8.36$ ), and doing activities together ( $\bar{x} = 7.98$ ). Indices of the community and family relationships aspect were created by factor analysis using *Varimax* rotation to separate individual responses of the ten distinct items. The analysis, which accounted for  $\sigma^2 = 70.156$  of variance in the ten items, yielded a three-factor

solution that was highly interpretable. Each item was loaded on only three factors; all items also had strong factor loading. The Community and Family Relationships Aspect index was developed by adding all responses to items concerning viewpoints on “*Interfamily communication and support*,” “*Negative family trait*” and “*Religious and social activities*.” The three- item index achieved  $\alpha = 43.501, 13.952$  and  $12.703$  respectively.

## 5. Administrative Management dimension

The fifth dimension (see Table 8) illustrates the importance of democratic participation in the studied communities. Ability to elect local officials scored the highest ( $\bar{x} = 9.14$ ), followed by village headmen must work to support their community members ( $\bar{x} = 8.30$ ), community leaders have respect and engage in participatory and transparent management ( $\bar{x} = 8.22$ ), successful local governance makes the people in a community proud of their community ( $\bar{x} = 8.18$ ), they are proud to be a member of the community due to good assessments from outsiders ( $\bar{x} = 8.07$ ), small media in the community such as radio, bulletin boards, mobile speakers, and leaflets are the main information channels ( $\bar{x} = 8.04$ ), local government leaders make people feel proud of their land and community ( $\bar{x} = 8.01$ ). Indices of the administrative and local government organization management aspect were created by factor analysis using *Varimax* rotation to separate individual responses of the 28 distinct items. The analysis, which accounted for  $\sigma^2 = 66.833$  of variance in the five items, yielded a six-factor solution that was highly interpretable. Each item was loaded on only six factors; all items also had a strong factor loading.

The administrative and local government organization management aspect index was developed by adding all responses to items concerning viewpoints on “*social capital, engagement in respect of the management of leaders in the community,*” “*local governance and participatory communication*”, “*maintenance of democratic principles within the community*”, “*representation of individuals by leaders of communities*” “*transparency and good governance*”, and “*leader devotion*”. The five-item index achieved  $\alpha = 31.26, 11.465, 10.323, 10.266$ , and  $4.194$ , respectively.

**Table 8** Administrative management dimension (mean and factor loading)

Administrative Management	Average	Factor loading						Reliability
	$\bar{x}$	$\alpha$	1	2	3	4	5	
1. Community officials are local people with local family connections.	7.54	2.089	.817					31.263

Administrative Management	Average	Factor loading						
	$\bar{x}$	$\alpha$	1	2	3	4	5	Reliability
2. Availability of regular budgets for community needs.	7.33	2.395	.805					
3. Community officials are honest and sincere.	7.36	2.404	.805					
4. Local staff occupies most positions in local organisations.	7.45	2.157	.799					
5. Cooperation between various departments of the local government and the local community	7.62	2.002	.777					
6. Understanding that the community budget makes prior provision for emergencies and unforeseen events.	7.14	2.696	.714			.476		
7. Local Organization Management or Or-Bor-Tor looks after problems in the community.	7.94	1.839	.710					
8. Community leaders respect and engage in participatory and transparent management.	8.22	1.833	.657	.435				
9. Equal access to health care, aging people fund and social welfare.	7.43	2.777	.653					
10. Safety inspection by the local government.	6.90	2.502	.647					
11. Pride in community due to successful local governance.	8.30	5.077	.640					
12. Village headmen should work honestly and have access to people in their community.	8.18	1.943	.635					

Administrative Management	Average	Factor loading						
	$\bar{x}$	$\alpha$	1	2	3	4	5	Reliability
13. Local people are able to participate in and state their views in local meetings.	6.90	2.411	.618			.505		
14. Members of the community help each other.	7.20	2.821	.610	.561				
15. Local community organisations treat people according to the relevant laws and accepted rules.	7.62	1.917	.599	.474				
16. Justice and civil protection is the responsibility of local organisations.	7.10	2.379	.593					
17. People are able to elect local officials.	9.14	1.824	.556					
18. Local government leaders make people feel proud of their land and community.	8.01	5.020	.482					
19. People feel pride to be a member of their community due to good assessments fromoutsiders.	8.07	2.109	.471					
20. Members of the community receive information from others, including officials, about local activities.	7.09	2.188		.707				11.468
21. Local government provides public parks, fitness and exercise equipment which are meeting places in the community.	7.13	2.427	.424	.644				

Administrative Management	Average	Factor loading						Reliability
	$\bar{x}$	$\alpha$	1	2	3	4	5	
22. Small media in the community such as radio, bulletin boards, mobile speakers, and leaflets are the main information channels.	8.04	2.109		.629				
23. The president of the Tambon Administration Organization is a rich man who is unable to solve his people's problems.	3.73	3.356			.939			10.291
24. Members of the Tambon Administration Organization are wealthy and do not understand their people or their problems. They are also too busy with their own affairs to help their people.	3.87	3.348			.922			
25. The head of the community is a rich man so he can reach all his people.	4.37	3.435			.861			
26. Members of the community help each other and participate in the planning and development of projects.	5.13	3.343				.880		9.4
27. The community is informed of the contents of local budgets.	5.94	3.113				.767		
28. The village headmen must work to support their community members.	8.30	5.077					.826	4.329
Over-all mean.	7.10							

## 6. Community Environment and Climate dimension

**Table 9** Community environment and climate dimension (mean and factor loading)

Community environment and climate	Average		Factor loading				Reliability
	$\bar{x}$	$\alpha$	1	2	3	4	
1. There is water and air pollution from garage and industrial activities.	1.77	2.710	.789				21.286
2. Polluted water is released in the community.	2.16	3.037	.784				
3. Waste is dumped causing a bad smell.	1.18	2.080	.701				
4. There is a crime problem in your community.	1.21	2.274	.695				
5. There are dust, smoke and carbon-dioxide from cars in your area.	3.37	3.303	.686				
6. There are drugs and drug addiction in the community.	3.43	3.087	.629				
7. There are transport problems due to dirt roads.	5.42	3.373		.837			18.642
8. There are insufficient public parks.	6.13	3.229		.827			
9. Public parks are inconveniently located far from residents.	5.89	3.020		.753			
10. There is insufficient water for agriculture.	5.49	3.042		.726			
11. There are parks and public spaces for community activities.	7.07	2.390		.493	.459		
12. There are transport problems due to flooding.	5.11	5.830		.436			
13. Training and opportunities to reform juvenile delinquents are available.	3.70	3.449			.857		16.771
14. Local organizations are able to solve community problems.	4.98	3.819			.847		
15. Juvenile drug addiction, police and legal responses.	3.01	3.125	.434		.653		
16. There are transport problems due to road construction and heavy traffic.	4.81	3.364				.679	8.251

17. There is noise pollution from automobile transport.	1.65	2.408	.546	.554
Over-all mean.	4.03			

In the sixth dimension, results showed availability of parks and public spaces for community activities scored the highest ( $\bar{x} = 7.07$ ), followed by insufficient public parks ( $\bar{x} = 6.13$ ), location of public parks ( $\bar{x} = 5.89$ ), availability of irrigation for agriculture ( $\bar{x} = 5.49$ ), transport problems due to dirty roads ( $\bar{x} = 5.42$ ), transport problems due to flooding ( $\bar{x} = 5.11$ ), ability of local organizations to solve community problems ( $\bar{x} = 4.98$ ), inconvenience for community transport caused by road construction ( $\bar{x} = 4.81$ ), availability of training and opportunity for juveniles to reform ( $\bar{x} = 3.70$ ), drugs and drug addiction in the community ( $\bar{x} = 3.43$ ), dust, smoke and carbon from cars in the area ( $\bar{x} = 3.37$ ), juvenile drug addiction, police and legal responses ( $\bar{x} = 3.01$ ), water pollution in the community ( $\bar{x} = 2.16$ ), pollution from industrial activities ( $\bar{x} = 1.77$ ), noise pollution ( $\bar{x} = 1.65$ ), crime rate in the community ( $\bar{x} = 1.21$ ), irresponsible waste dumping ( $\bar{x} = 1.18$ ).

Environmental and climatic indices relating to the community were created by factor analysis using *Varimax* rotation to separate individual responses of the 17 distinct items. The analysis, which accounted for  $\sigma^2 = 70.442$  of variance in the three items, yielded a four-factor solution that was highly interpretable. Each item was loaded on only four factors; all items had also strong factor loading. The environment and climate in the community index was developed by adding all responses to items concerning viewpoints on “*Condition of drug use, environmental pollution and waste problems in the community,*” “*Recreation and water infrastructure limitations,*” “*Adequacy of response to deviation from sociology norms*” and “*transport and noise pollution problem.*” The four-item index achieved  $\alpha = 286.21, 18.642, 16.771$  and  $8.251$ , respectively. Regression analysis was used with Enter Method Technique to find the correlation ( $R$ ) and prediction Coefficient of determinism ( $R^2$ ) and measure the coefficient of determination ( $R^2$  change)  $F$  ratio ( $F$ ) and proportion of coefficient of determinism ( $F$  change) from various measures in order to predict the well-being of the Koakha and Thagham communities people ( $Y$ ), as shown in Table 11:

### Regression Coefficient of Well-being factors

Communication types have a negative relationship with the health and mind dimension, job security dimension, economic dimension, community and family relationships dimension, administrative dimension and environment dimension following equator

$$y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_k X_k$$

$$\text{Health and mind aspect} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_k X_k$$



Job security aspect= $\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_kX_k$

Economic aspect= $\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_kX_k$

Family and Community relationship aspect= $\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_kX_k$

Local Administrative aspect= $\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_kX_k$

Environment aspect= $\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_kX_k$

All of Model 1 in Table 10 included only the specific attitude index and explained 11.2%, 18%, 31.8%, 17.3%, 31.1% and 41.7% of the variability in the communication types and well-being or happiness index. The additional of the general attitude scale did not increase the  $R^2$  = of coefficient determinism or factors of well-being indicates a strong positive and significant correlation ( $p < 0.01, 0.05$  and  $0.10$ ). Model no. 1 explains that at least one variable from 83 variables in 6 aspects relate to happiness ( $R=11.2\%$ ,  $18\%$ ,  $31.8\%$ ,  $17.3\%$ ,  $31.1\%$  and  $41.7\%$ ). Durbin-Watson is 1.89, 1.619, 1.585, 1.636, 1.816 and 1.755. The score is 1.5-2.5, meaning that it is independent. (see Table 11 below).

**Table 10** Regression Coefficient of Well-being factors

Communication Type (s)	Digital TV	Digital media	Radio	Printed media	Personal media	Local media
<b>Health and mind Aspect</b>						
Happy to live in family and community	.059 [.121]	.137 [.096]	-.104 [.079]	-.068 [.092]	-.047 [.078]	-.097 [.078]
Happy and healthy	-.010 [.122]	.016 [.096]	-.062 [.080]	-.031** [.093]	.019 [.078]	-.096 [.078]
Lively and positive thinking	.158 [.099]	.137* [.078]	-.076 [.064]	.006** [.075]	.051 [.063]	.067 [.063]
<b>Job security Aspect</b>						
Job security and sufficient lifestyle	.217* [.122]	.309*** [.096]	-.016 [.079]	-.001** [.092]	.107 [.078]	.076 [.078]
Job security depends on national economic performance	.036 [.101]	.203** [.080]	-.145** [.066]	-.010** [.077]	.099 [.065]	.090 [.065]
<b>Economic Security</b>						
Occupational viability depends on national economic security and Manageable debt	.192* [.108]	.172** [.086]	.112 [.070]	.203 [.082]	.071 [.069]	.223** [.070]
Economic Sufficiency	-.249** [.111]	-.039 [.088]	.084 [.073]	.244 [.085]	.078 [.071]	.137* [.072]
<b>Family and Community Relationship</b>						
Interfamily communication and support	.008 [.127]	-.030 [.100]	.177** [.082]	.053** [.096]	.074 [.081]	-.069 [.081]
Negative family trait	-.114	.083	-.008	.013**	.016	.008

	[.088]	[.069]	[.057]	[.066]	[.056]	[.056]
<b>Local Administrative</b>						
Social capital, engagement in respect of the management of leaders in the community	.125 [.118]	-.079 [.094]	-.056 [.077]	.000*** [.090]	.117 [.076]	.233** [.076]
Local governance and participatory communication	.115 [.108]	.031 [.085]	-.085 [.070]	.104 [.082]	.091 [.069]	.240** [.069]
Background to the leadership style	.048 [.110]	-.100 [.087]	.042 [.072]	.262 [.083]	.111 [.071]	-.034 [.071]
Transparency and good governance	.239*** [.091]	.092 [.072]	.063 [.059]	.071 [.069]	.129** [.059]	-.016 [.059]
Leader devotion	.072 [.087]	.024 [.069]	.016 [.057]	.000*** [.066]	-.039 [.056]	-.077 [.056]
<b>Environment, Climate and Community Aspects</b>						
Conditions of drug use, environmental pollution and waste problems in the community	.087 [.106]	.058 [.083]	.517*** [.069]	.150* [.080]	-.142** [.068]	-.143** [.068]
Recreational and water infrastructure limitations	-.114 [.093]	-.165** [.074]	.225*** [.061]	-.110 [.071]	-.372*** [.060]	-.377*** [.060]
Adequacy of response to deviation from sociology norms	.064 [.115]	.046 [.091]	-.223** [.075]	-.025** [.087]	.309*** [.074]	.480*** [.074]
Transport and noise pollution problems	-.088 [.089]	-.074 [.071]	-.134** [.058]	.026** [.068]	.097* [.057]	.172** [.057]
<b>R<sup>2</sup></b>	0.112	0.180	0.318	0.173	0.311	0.417
<b>Durbin-Watson</b>	1.89	1.619	1.585	1.636	1.816	1.755

**Note:** For each column,  $\beta$  contains the coefficients of the indices of six dimensions, including health and mind, job security, economic security, family and community relationships, administrative management, and community environment, climate. Constant coefficients from all OLS regressions in upper and lower positions represent the  $\alpha$  containing the coefficients of the 6 standard factors.  $R^2$  is the column that represents the  $R^2$  value of regression. Durbin - Watson is the score. The score is 1.5-2.5, meaning that it is independent. P-Val is the column that represents the p-value from the F-test. The numbers in square brackets are the t-statistics to test whether each coefficient is significantly different from zero. \*, \*\*, and \*\*\* represent the significant levels of 0.10, 0.05, and 0.01, respectively, from the F-tests.

The tables above relate to technology determinism of communication using digital media (McLuhan, 1967). It is a dependent variable as community happiness acquires 11.2%, while the remaining 89.8% have other variables that affect happiness (Y). The happiness sampling (387 people) increased to 3.092 when the happy to live in family and community item increased 0.059, the happy and healthy item decreases 0.10, and lively and positive

thinking increased 0.158. The *job security and sufficiency lifestyle* item increased to 0.217, *job security depends on national economic performance* item increased to 0.036, the *occupational viability depends on national economic security and manageable debt* item increased 0.192, the *economic sufficiency* decreased 0.249, the *interfamily communication and support* item increased 0.008, the *negative family trait* item decreased 0.114, the *adequacy of response to deviation from sociology norms* item increased 0.064, the *transport and noise pollution problems* decreased 0.088, the *social capital, engagement in respect of the management of leaders in the community* item increased 0.125, the *local governance and participatory communication* item increased 0.115, the *maintenance of democratic principles within the community* item increased 0.048, the *transparency and good governance* item increased 0.239, the *Leader devotion* item increased 0.072, while the *conditions of drug use, environmental pollution and waste problem in the community* item increased 0.087 and the *recreational and water infrastructure limitations* item decreased to 0.114.

Secondly, digital media includes mobile phones, social networks and all digital equipment usage behaviours is a dependent variable or community happiness acquires 18% the remains 82% have other variables that affect happiness (Y). The happiness sampling (387 people) increased 2.448 when the *happy to live in family and community* item increased 0.137, the *happy and healthy item* decreased 0.016, the *lively and positive thinking* increased 0.137. The *job security and sufficiency lifestyle* item increased to 0.309, the *job security depends on national economic performance* item increased to 0.203, the *occupational viability depends on national economic security and Manageable debt* item increased 0.192, the *economic sufficiency* increased 0.172, the *interfamily communication and support* item decreased 0.030, the *negative family trait* item decreased 0.083, the *adequacy of response to deviation from sociology norms* item decreased 0.079, the *transport and noise pollution problems* increased 0.031, the *social capital, engagement in respect of the management of leaders in the community* item decreased 0.079, the *local governance and participatory communication* item increased 0.031, the *Maintenance of democratic principles within the community* item decreased 0.100, the *transparency and good governance* item increased 0.092, the *leader devotion* item increased 0.024, while the *conditions of drug use, environmental pollution and waste problem in the community* item increased 0.058, the *recreational and water infrastructure limitations* item decreased to 0.165, the *adequacy of response to deviation from sociology norms* item increased 0.046 and the *transport and noise pollution problems* item decreased 0.074.

Thirdly, the radio received behaviours is a dependent variable or community happiness acquires 31.8% the remains 68.2% have other variables that affect happiness (Y). The happiness sampling (387 people) increased 2.12 when the *happy to live in family and community* item decreases 0.104, the *happy and healthy item* decreases 0.062, the *lively and*

*positive thinking* decrease 0.076. The *job security and sufficiency lifestyle* item decreases to 0.016, the *job security depends on national economic performance* item decreased to 0.145, the *occupational viability depends on national economic security and manageable debt* item increased 0.112, the *economic sufficiency* increased 0.084, the *interfamily communication and support* item increased 0.177, the *negative family trait* item decreased 0.008, the *adequacy of response to deviation from sociology norms* item decreased 0.056, the *transport and noise pollution problems* decreased 0.085, the *social capital, engagement in respect of the management of leaders in the community* item increased 0.042, the *local governance and participatory communication* item increased 0.063, the *maintenance of democratic principles within the community* item increased 0.016, the *transparency and good governance* item increased 0.517, the *Leader devotion* item decreased 0.225, while the *conditions of drug use, environmental pollution and waste problem in the community* item increased 0.517, the *recreational and water infrastructure limitations* item decreased to 0.225, the *adequacy of response to deviation from sociology norms* item decreased 0.223 and the *transport and noise pollution problems* item decreased 0.134.

Fourth, the printed media includes reading newspapers and reading newspapers while having meals behaviours is a dependent variable or community happiness acquires 18% the remains 82% have other variables that affect happiness (Y). The happiness sampling (387 people) increased 1.927 the *happy to live in family and community* item decreases 0.047, the *happy and healthy item* increases 0.0191, the *lively and positive thinking* increased 0.051. The *job security and sufficiency lifestyle* item increases to 0.107, the *job security depends on national economic performance* item increased to 0.099, the *occupational viability depends on national economic security and manageable debt* item increased 0.071, the *economic sufficiency* increased 0.078, the *interfamily communication and support* item increased 0.074, the *negative family trait* item increased 0.016, the *adequacy of response to deviation from sociology norms* item decreased 0.056, the *transport and noise pollution problems* decreased 0.117, the *local governance and participatory communication* item increased 0.091, the *maintenance of democratic principles within the community* item increased 0.111, the *transparency and good governance* item increased 0.129, the *leader devotion* item decreased 0.039, while the *conditions of drug use, environmental pollution and waste problem in the community* item decreased 0.142, the *recreational and water infrastructure limitations* item decreased to 0.372, the *adequacy of response to deviation from sociology norms* item increased 0.309 and the *transport and noise pollution problems* item increased 0.097.

Fifth, the personal media such as local government officials, family, neighbours and monks communication behaviours is a dependent variable or community happiness acquires 18% the remains 82% have other variables that affect happiness (Y). The happiness

sampling (387 people) increased 2.984 the *happy to live in family and community* item decreased 0.097, the *happy and healthy item* decreases 0.096, the *lively and positive thinking* increase 0.067. The *job security and sufficiency lifestyle* item increased to 0.076, the *job security depends on national economic performance* item increased to 0.090, the *occupational viability depends on national economic security and Manageable debt* item increased 0.223, the *economic sufficiency* increased 0.137, the *Interfamily communication and support* item decreased 0.069, the *negative family trait* item increased 0.008, the *maintenance of democratic principles within the community* item decreased 0.034, the *transparency and good governance* item decreased 0.016, the *leader devotion* item decreased 0.77, while the *conditions of drug use, environmental pollution and waste problem in the community* item increased 0.148, the *recreational and water infrastructure limitations* item decreased to 0.377, the *adequacy of response to deviation from sociology norms* item increased 0.480 and the *transport and noise pollution problems* item increased to 0.172.

Lastly, the local media exposure is a dependent variable or community happiness acquires 18% the remains 82% have other variables that affect happiness (Y). The happiness sampling (387 people) increased 2.984 when the *happy to live in family and community* item decreased 0.097, the *happy and healthy item* decreases 0.096, the *lively and positive thinking* increase 0.067. The *job security and sufficiency lifestyle* item increased to 0.076, the *job security depends on national economic performance* item increased to 0.09, the *occupational viability depends on national economic security and Manageable debt* item increased 0.223, the *economic sufficiency* increased 0.137, the *interfamily communication and support* decrease 0.069, the *negative family trait* decrease 0.008 the *social capital, engagement in respect of the management of leaders in the community* item decreased 0.233, the *local governance and participatory communication* item increased 0.240, the *maintenance of democratic principles within the community* item decreased 0.034, the *transparency and good governance* item decreased 0.016, the *leader devotion* item decreased 0.77, the *conditions of drug use, environmental pollution and waste problem in the community* decreased 0.143, the *recreational and water infrastructure limitations* item decreased 0.377 while the *adequacy of response to deviation from sociology norms* item increased 0.048 and the *transport and noise pollution problems* item increased 0.172.

## Analysis and Hypothesis testing

All the variables and relationship summaries (positive and negative) of well-being and socioeconomics are shown in the tables (Table 1 to Table 7). A positive relationship between socioeconomics, communication and well-being was predicted; the link was expected to be stronger from the job security, economic, transparency administrative and interpersonal communication and relationship aspects. Some community members are in debt but manageable. Nonetheless, they were satisfied with their income and economy

lifestyle. As a result of debt is related to savings in the  $p\text{-value}=0.01$  and Hypothesis 1 is rejected that socioeconomics related to happiness ( $F = 7.963$ , sig  $0.00<0.05$ ). Inter-correlations among various average monthly incomes of more than 20,000 baht were examined to ensure that collinearity would achieve a value of 0.89 ( $p < 0.005$ ). The mean of the 84 variables can be used to calculate the happiness score (7.97). This suggests that the community is moderately happy and that direct financial concerns are less important.

As these people are labourers, business owners and government officials or state enterprise officers, they need to be able to pay their way, and this can mean that they need to go into debt. In the case of labourers and government officials, they had to take out study loans from the government in order to pay for their education. These loans need to be repaid. So long as the repayment is not too heavy, these people are able to manage; however, the loans may take years to repay.

Some of these people are land owners and they are able to secure loans against the value of their land mortgage. The mortgage can be repaid using money accrued as rent or income from the land. They do not have to repay their loans from their other income. If these people lose their jobs for any reason, they are able to return to their land and to agricultural production. This is in keeping with the sufficiency philosophy of the late King Bhumibol Adulyadej Rama, IX. Having transparency, good governance, job security, and sufficiency lifestyle were the strongest factors contributing to happiness in both digital television and media while the condition of environment, climate, drugs and waste problems in the community and solving problems in the community were the strongest factors contributing to happiness in all other kinds of communication. The government officials are often local people who understand local needs and are devoted to working for the community. Consistent with community needs, people attend public meetings where they are able to express their own views of what is needed and also comment on the use of available funds. This enables the community as a whole to work together.

The attendance of these meetings; are examples of participatory communication (See picture III - V below). As this is a primary form of communication in this community, it is their primary form of media usage, where these meetings allow for all decisions to be transparent; therefore, they have good governance. They also have less need for mass media as their systems are transparent. The mass media serves to keep the community informed of events beyond their community.



**Figure 1** Informal traits of leaders in the community with participatory communication activities.

The results of this study found that the informal traits of leaders in the community with participatory communication and also transparency in budget management. These were integral to social capital and well-being. It can be said that the social capital and management reflect community peoples' happiness. As a result of Ballas & Tranmer (2012), referred to Keyes (1998) and Putnam (2000) in the measurement of well-being examined the association with the extent of individuals' social and support networks and relevance in social capital, social well-being and local community networks to people's quality of life and happiness. Nonetheless, sufficiency economics in their daily lifestyle support activities extended to projects that the local official organization proposes for seeking a budget. For example, projects relating to agriculture and waste collection and disposal.

According to the philosophy of sufficiency, the leaders of the Koakha and Inburi sub-districts and the government, cooperate in teaching the community new means regarding earthworms and then how to produce fertilizers (earthworm fertilizer). This involves non-chemical techniques in the agricultural system, which can be used to sustain life better than chemically based agriculture. In this system, the waste is taken to a collection point where it is separated. Biological waste is turned into fertilizers, metals, plastics and paper are recycled (see the pictures below).



**Figure 2** A wet waste management and earth worm fertilizer

The other aspects associated with positive thinking and happiness related to their health, job security and occupation which depended on national economic performance. They have manageable debt in the economic sufficiency life-style. Interfamily communication and support for family members helps to maintain peace of mind, happiness and positive thinking. These were strong factors contributing to happiness in digital, radio broadcasting, local, personal and printed media. The correlation between the medial uses index and well-being is examined in the absence of controls. The analysis revealed a correlation between personal, local and printed media. Meanwhile, the test of Hypothesis 2 is accepted, indicating that communication usage is related to happiness (using Pearson's correlation  $r = 0.173, 0.311$  and  $0.417$  sig  $0.00 < 0.05$ ). It is indicated that there is a relationship between the communication type, (interpersonal communication), and the well-being of local people in the Koakha and Thagham Communities. Mass digital media have distributed over the success of community endeavours such as 'wet waste management,' 'earth worm fertilizer,' and 'women's sewing group' are sustainable sufficiency projects and contributed to their receipt of an award for transparency, public participation in community affairs and good governance. This is indicative of the openness and community spirit of the people in the area.





**Figure 3** Women's sewing group and communities' activities.

## **Discussion and Conclusion**

Economic factors affect people of all ages, especially those that are reaching middle age. It is logical that those who have not yet reached advanced age will be more involved with the cash economy. The present study found that perception of having adequate income and savings was statistically positively associated with happiness for people aged over 35 - 74 ( $n = 92.8\%$ ) but not for those who are older. This might be due to the physical decline experienced by those aged 75 and older, which may make it more difficult to spend time outside the house and, thus, they may have less need for cash. Seniors who have higher education and have retired from government service, can easily make themselves available for the acquisition of new knowledge such herbal products and assist in the training of the next generation. This feeling might also have roots in the Buddhist belief that one should be content with what one has, which is a specific characteristic of Thai Buddhists which increased happiness among older persons (Gray et al., 2008) and this belief may be stronger among the very old. Surprisingly, digital media impacts on people over 30 years of age where they are using mobile phones to maintain contact with distant family members and friends. In Thailand, a lot of money has been invested in digital television but only resulted in the creation of forms of television programme such as game shows, singing contests, reality game shows, amusement programmes, which are related to Thai people. These do not have an impact on viewer perceptions. Most people watch analogue TV as usual. They argue that digital TV systems do not necessarily mean a change in programming contents. The main reasons are that it is difficult to set up digital systems in their area and many do not have

enough money to buy new digital receivers and a digital television set. The contents are essentially 'old wine in a new bottle' such as game shows and violent dramas. A few new drama programmes and Thai dance shows may be new

The opposite result of the Neilson Surveys of digital media which led to the ranking of popular programmes as indicated below for shows during the 1 – 30 April 2017, has been obtained. (Average TV Rating: Primetime during 1-30 April 2017 from <http://www.agbnielsen.net/>). These surveys were carried out predominately in small urban areas, and cannot therefore be considered reliable for the country as a whole. The survey only considers entertainment programmes on the top 10 popular programmes lists. A criticism would be that these surveys do not consider a sufficiently broad spectrum of the population of the country to be considered entirely reliable. The perception that many of the shows have political motives and that any information gained from them is also perceived to be political is widespread among those in the media. Other kinds of television programmes are aimed at various human needs. These needs include, among other things, the acquisition of information, entertainment, companionship, the exploration of personal reality, and the underlining of personal and social values.

People aged 50-60 years read newspapers or watch television to be informed of outside events, or to acquire political information, and/or for entertainment purposes. Some of them appear to 'multitask' by using several forms of mass media at once. People talk in a group following the media agenda and gossip about the political situation on a television news show. At the end of a working day, the people of Koakha visit the monks to discuss matters of concern and to make offerings.

The results of this study are in contrast to a survey by the National Broadcasting Telecommunication Committee, 2016 retrieved on August 5, 2017 from <http://www.nbtcc.go.th/News/Press-Center>. Despite the influence of powerful global media, local media is still important as it is easy to run and it is accessible to wide ranging local audiences. Meanwhile, the government usually subsidizes local radio and television projects in areas such as the acquisition of general and locally relevant knowledge. Health promotion volunteers, for example, use social media and services such as LINE, and Facebook to post internal news and public information.

The findings of this study suggest that socioeconomic factors and communication types significantly relate to the levels of happiness experienced by the people of Koakha, Lampang province and Thagham, Inthaburi in Singhburi provinces represent the North and Centre of Thailand. The patterns reveal parallel positive and negative associations between various socioeconomic factors, especially factors such as job security, economic security, family and community relationships, local administration, the environment and physical and mental health. These factors are all interrelated and cannot be easily separated.

With the use of personal and small local media, and traditional stories, communities are able to hold themselves together without the use of modern media.

Happiness relates to government policies, laws, and funds being allocated to every community and village, so long as there is sufficient funding to meet any perceived needs. People, who are in good mental and physical health, have sufficient social, cultural and communication capital, and feel as though they are able to cope with their lives are unlikely to oppose the government. In the past people rose up in opposition to the government because they felt that their future was being compromised. Distributing budgets fairly and administering them transparently through local government could potentially do this. Interestingly, it was also found that local leaders who are native to the area are more successful at achieving this than other leaders because they know how to improve their area first-hand.

Mass media in Thailand consists of radio and television. The experiences and unity of a community that comes from participation in public meetings and online is also integrated into the social network via Facebook, Twitter, YouTube channels and similar forms of social media. Local organisations tracking the same line are able to interact with local people online and present public information. While communication creates networks of relationships among local people who form the structure of the community, networks connect groups with one another, help to form beliefs, values and modify behaviour. Groups that come to share more are said to experience convergence and groups that share less, experience divergence. Social network applications are able to support and increase communication with people who are inclined to communicate less. The amount of variation within the group increased and the structure of the system broke apart and entropy prevailed. This suggests that social media may be able to help those who find it difficult to maintain contact with others, as it provides a means to maintain contact over distance.

With an increase in communication within a group more is shared, structure develops, resulting in convergence. This principle also applies between groups. As contact between groups' increases, they become more alike. If they lose contact, differences develop and become clearer. People often experience this personally when they lose touch with old friends and form new friendships. This process forms the base for cultural differences. If everybody communicated with others outside their culture as much as they do in their group, cultures would soon disappear. Nonetheless, it can be said that from an economic viewpoint, culture and social relations are capital. If both are incorporated in a tourist activity, it would increase income for everyone. This may be good for smaller more isolated communities, as it would provide more economic advantages for local people, and therefore they would be less inclined to move away to search for work. The following illustration depicts this conclusion:



**Figure 4** System showing how communication affects people's well-being

This study found that communication impacts and brings six factors together where they are entwined and cannot be easily separated. Communication is a variable of transparency administration and networking, especially face-to-face communication. Modern communication systems such as computer networks have to be treated with considerable caution, as the sources of available information may be difficult to verify. Most of the people in Koakha and Thagham found that the younger generation leaves and goes to major urban centres such as Bangkok or Chiang Mai. They do not have much time to visit and rely on the telephone to communicate with family and friends in other areas. This may be the reason why local residents visit the temples and talk to the monks. The local administration organisations such as the local administration and local clinics always create activities for aging people, for example, massage with herbs and facilities for bedridden patients. Local governments help to promote better health among local people, by providing food and knowledge when they are faced with possible flooding in their area.

To sum up, happiness or well-being includes economic conditions and conceptions which are at the centre of the capitalist ideology. This ideology is unlikely to be rejected, rather it is to be embraced and sustained by governments and their people. In enabling people to lead happy lives, governments have to assume all indices as mentioned above. Happiness can be mentioned using the seven aspects of physical and mental health, job security, economics, family and community relationships, environment, transparency, and local administrative governance. It is suggested that the factors arising from this study may be divided, in a broad sense, into two categories: policy suggestions and practical suggestions.

Further recommendations

1. Policy suggestions:

1.1 A policy of downsizing the power of national government by, wherever possible, transferring power from the central authority in Bangkok to the local provincial and district authorities. This transfer of authority needs to be carefully carried out so as to maintain the principle of law and measurement with standardisation.

1.2 Happiness policies in Thailand should be sustained according to the sustainable and sufficiency philosophy of King Bhumibol Adujyadej Mahintarathibej Chakri Naruebhodin Siamintharathiwat Borommanardbhophit (King Rama IX). According to the Social and Economic Development Strategy of the 20 Year Plan (Activated during 2017-2037) almost all activity and budgets follow the Digital 4.0 policy. However, the Sustainable and Sufficiency Philosophy of King Rama IX is the first priority and was announced by UNESCO in remembrance of the Great King. These policies include programmes to consider the happiness of the Thai people. It does not of itself, directly affect people in terms of their mental well-being or their community relations.

2. Practical suggestions:

2.1 The promotion of good living conditions with participatory communication and conflict resolution in local areas, both in giving and taking ideas to understand local contexts. The inclusion of local needs and contexts can be taken as part of the national policy documents.

2.2. Communication is the mechanism of everything for everyone, especially the mass media among digital media, as everyone can have access to and therefore use media devices. Such digital media however needs to be used with caution, as they can reach the stage of overuse which can have a negative impact on the well-being of the user.

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## **Limitations**

Due to limited time, the results of this research were unfortunately only produced for the Thagham and Koakha areas. The degree of reliability and efficiency could be increased if samples from other areas in Thailand were included.

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